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Amended Claims

1. A method of positioning a hand instrument, in correct position, at a preparation site, comprising the following steps:

5 - computing position-dependent surface features of a three-dimensional data set relating to the surface of the preparation site relative to a desired position of an implant to be inserted into said cavity, the area in which the cavity is to be created being present in the form of a three-dimensional set of volume data;

10 - detecting at least one section of the preparation site which exhibits a visible real surface feature by means of a camera, located on the hand instrument at a specific distance from a machining tool, and a display providing a video image;

15 - superimposing a computed surface feature for the target position of said hand instrument such that altering the position and angle of said hand instrument can cause a change in the position of said superimposed surface feature relatively to the visible real surface feature, and can, in particular, bring these two features to coincidence, the surface feature used being a horizontal line.

20 2. A method as defined in claim 1, characterized in that during the machining operation always those surface features which are computed for the current position of said hand instrument are superimposed over said video image, the current position of said hand instru-

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ment corresponding to a position of the implant within said cavity.

3. A method as defined in claim 2, characterized in that a surface feature for an end position of the hand instrument in the cavity to be created is displayed.
4. A combination of a hand instrument (3), a display (12), and an evaluating unit (13) for creating or excavating a cavity, in particular a bone cavity, which hand instrument (3) comprises a machining tool (4) and a camera (6), characterized in that said hand instrument (3) transmits the image produced in said camera (6) to a display (12), that the distance of said camera (6) from the tip (7) of said machining tool (4) is known, and that said evaluating unit computes surface features in the form of a horizontal line (H) and displays same on a display (12).
5. A combination as defined in claim 4, characterized in that said camera (6) has a depth of focus of from 5 to 30 mm and records a panorama view.
- 20 6. A combination as defined in claim 4 or claim 5, characterized in that said camera (6) is integrated in that end (5) of said instrument (3) which is near said machining tool (4).
7. A combination as defined in any one of claims 4 to 6, 25 characterized in that illuminating means are provided for the purpose of illuminating that part of the surface which is relevant for registering and displaying said horizon line.